

CLAIMS:

1. A continuous and selective inclusion separation method characterized in that, in a reaction system having at least two liquid-liquid interfaces between an organic phase of raw material containing a compound(s) to be separated and an aqueous phase of an aqueous solution of inclusion-complexing agent and between said aqueous phase and an organic phase(s) of extraction solvent(s), said compound(s) to be separated is entrapped into said aqueous phase through formation of an inclusion complex(es) of said inclusion-complexing agent with said compound(s), while said compound(s) is entrapped into said organic phase(s) of extraction solvent(s) through dissociation of said inclusion complex(es).

2. A continuous and selective inclusion separation method as claimed in claim-1, characterized in that a diaphragm easily permeable to said aqueous solution of inclusion-complexing agent but hardly permeable to oil droplets of said organic phases is provided in said aqueous phase to prevent the two or more organic phases from mixing with each other even with vigorous stirring.

3. A continuous and selective inclusion separation method as claimed in claim-1 or 2, characterized in that said inclusion-complexing agent is a cyclodextrin(s).

4. A continuous and selective inclusion separation method as claimed in claim-3, characterized in that said raw material containing a compound(s) to be separated is a raw material selected from the group consisting of indole-containing mixtures, disubstituted benzene isomer mixtures, trisubstituted benzene isomer mixtures, 2-methylquinoline-containing hydrocarbon oils, 7-methylquinoline-containing mixtures, 2,6-diisopropylnaphthalene-containing mixtures, 2-methylnaphthalene-containing mixtures, 2,6-dimethylnaphthalene-containing mixtures, and optical isomer mixtures of pinene, limonene, menthol, mandelic acid esters, or the like.

5. A continuous and selective inclusion separation method as claimed in any one of claims 1 to 4, characterized in that at least part of a solution as the organic phase containing a compound extracted therein as an object of separation is withdrawn and distilled to concentrate said compound, and the organic solvent separated by distillation is returned back to the reaction system and reused as the extraction solvent.

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6. An inclusion separator characterized by comprising a reaction vessel constructed so as to allow an aqueous phase of an aqueous solution of inclusion-complexing agent to form liquid-liquid interfaces with at least two organic phases that are an organic phase of raw material containing a compound(s) to be separated and an organic phase(s) of extraction solvent(s), and stirring means for stirring at least neighborhoods of the respective liquid-liquid interfaces.

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7. An inclusion separator as claimed in claim 6, characterized in that a diaphragm easily permeable to said aqueous solution of inclusion-complexing agent but hardly permeable to oil droplets of said organic phases is provided in an inner portion of said reaction vessel wherein said aqueous phase is positioned, whereby said at least two organic phases are prevented from mixing with each other via said aqueous phase.

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